

**CITY OF CARLSBAD
CLASS SPECIFICATION**

JOB TITLE: **JOB SERIES FOR ENGINEERING TECHNICIANS**

DEPARTMENT: **AS ASSIGNED**

BASIC FUNCTION/DISTINGUISHING CHARACTERISTICS:

Engineering Technicians are para- professional level individual contributors, who use their underlying skills in areas such as: computer aided design and drafting, data collection and analysis, surveying, inspecting, performing engineering review of building plans, using and updating the GIS database and providing customer service and/or meeting with the public throughout various divisions in the City.

The job level of an Engineering Technician (as described by the attached KSA matrix) is determined by two factors. The first is “business need” to have a job performed at a certain level, as defined by the specific responsibilities designed into the role, and how the organization is structured. The second is that the job incumbent must possess the knowledge, skills and abilities to function at the assigned professional level, as demonstrated by their work and contributions. Typically, an Engineering Technician must possess and demonstrate at least 80% of the KSA’s at a given level to be assigned to that level.

KEY RESPONSIBILITIES:

The following are examples of the types of job duties that may be found in the Engineering Professional roles:

Not all responsibilities apply. Manager should identify and clarify specifics for those that do apply.

Under direction, prepare, or assist in the preparation of maps, exhibits, specifications, plans, estimates and reports pertaining to the construction, maintenance and operation of a variety of engineering or utility projects.

Use AutoCAD or other complex engineering design/drafting or database software; perform computer-aided design and drafting duties in connection with street, sewer line, water main, storm drains, traffic facilities and other projects.

Under direction prepare legal and property descriptions.

Maintain plan files and engineering records.

Update GIS database of City assets and private assets contributing to City utility systems; maintain data dictionary.

Use GIS database of City assets to create and print custom maps and spreadsheets, update asset reports for all City maintenance departments, communicate with other divisions and exchange information on assets collected.

Serve as a member of a survey or field data collection crew and operate various types of surveying or data collection equipment and instruments.

Collect data, make counts (such as traffic data), collect, and compile, tabulate and analyze field data; prepare summaries and reports based on data.

Inspect materials and workmanship on public works projects to insure conformance with established plans and specifications.

Sample and test soils, aggregates and cement.

Answer questions and provide information to the general public concerning engineering and infrastructure via front counter service, over the telephone and by computer. Assist public with land development questions, research, complaints, maps, plan checks, various permits, new submittals and fees.

Under direction, review building plans and documents for conformance to regulations. Provide technical advice and counsel to developers, citizen owners and others in the interpretation of City ordinances and established City policies relative to land development and other engineering issues.

Under direction, review building site plans for easements.

Research, review and process all actions necessary to issue encroachment permits, right-of-way permits, assist in the preparation of ordinances and resolutions, prepare deeds and proper descriptions, and related documents.

Under direction, perform plan checks of parcel maps, tract maps, records of surveys, legal descriptions and plot maps, and private /public agency development plans. Ensure code compliance. Review and prepare as-builts.

Conduct field inspections, surveys or investigation related to annual reporting requirements or problems affecting property owners, contracts, and utility and maintenance operations; resolve problems or refer as appropriate.

Do mark-outs, perform dig-alerts and respond to work orders.

Perform a variety of specialized engineering and office duties in support of the engineering staff.

Process permits. Calculate and collect appropriate fees.

Provide for maintenance of assets, e.g. traffic signals and street lighting.

Assist professional engineers in administering various projects as needed, e.g. meeting preparation and administration, preparation and distribution of minutes.

Update engineering related web pages.

Prepare data and information for annual reports.

Create job-related documentation and work processes. Train others on processes and software; provide oversight or coordination of contract workers or temps.

When serving in a transportation assignment;

Assist in the preparation of traffic signals, signage and stripping and/or timing plans.

Assist in network and traffic signal systems diagnostics and troubleshooting.

Operate and monitor the automated traffic signal control system.

Review and analyze traffic characteristics.

QUALIFICATIONS:

Knowledge Skills and Abilities are attached in the Engineering Technician Skills Matrix

EXPERIENCE AND EDUCATION:

Experience and education requirements are listed in the attached KSA matrix.

SPECIAL REQUIREMENTS:

Special requirements are listed in the attached KSA matrix.

PHYSICAL /MENTAL REQUIREMENTS AND WORKING ENVIRONMENT:

While performing the duties of this class, an employee is regularly required to sit; talk or hear, in person and by telephone; use hands to handle, feel or operate standard office equipment; and reach with hands and arms. Depending on the assignment the position may require moderate periods of standing and walking. Specific vision abilities required by this job include close vision and the ability to adjust focus to read and operate office equipment as necessary during the course of the work assignments.

While performing the duties, employees of this class are regularly required to use written and oral communication skills; read and interpret financial and statistical data, information and documents; analyze and solve problems; use math and apply mathematical reasoning and abstract statistical concepts; observe and interpret people and

situations; learn and apply new information or skills; perform highly detailed work on multiple, concurrent tasks; work under intensive deadlines; and interact with staff, City Council members and others encountered in the course of work.

The employee works under typical office conditions and the noise level is usually quiet. Depending on the assignment this position may require frequent exposure to the weather and the ability to conduct duties in areas of unstable footing.

Employee may be required to attend meetings and travel within and outside City limits during normal work hours and periodically in the evenings and on weekends.

DATE APPROVED: June 21, 2011